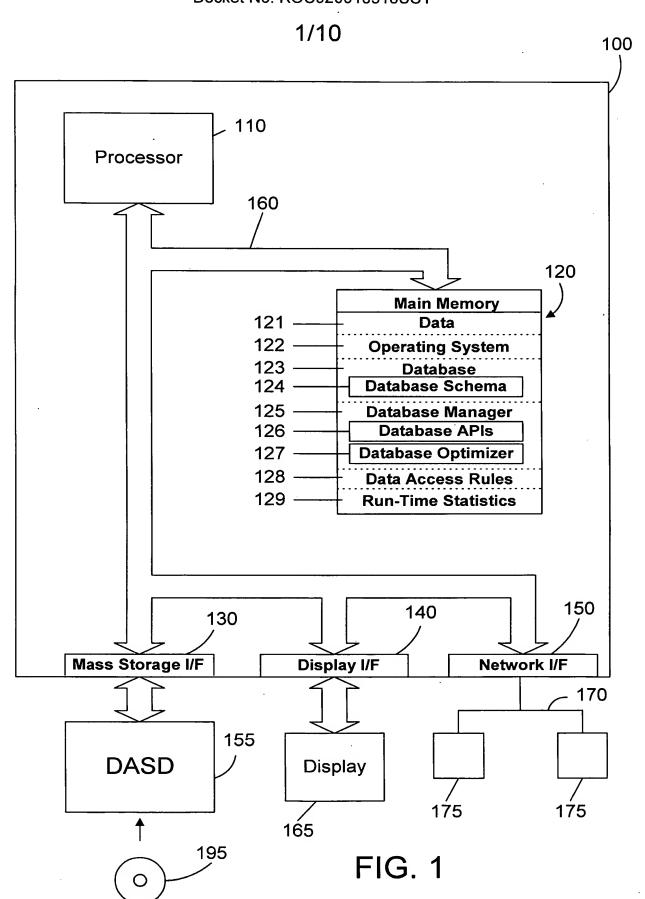
DATABASE OPTIMIZATION APPARATUS AND METHOD Arnold et al. Docket No. ROC920010318US1



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Select * from Table1 where C1=4 AND (C2>6 OR C3!=8)

FIG. 2

Prior Art

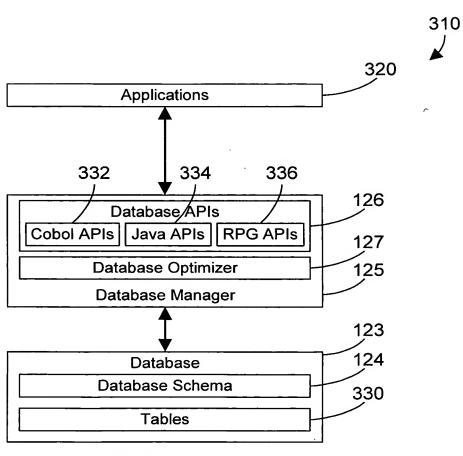


FIG. 3

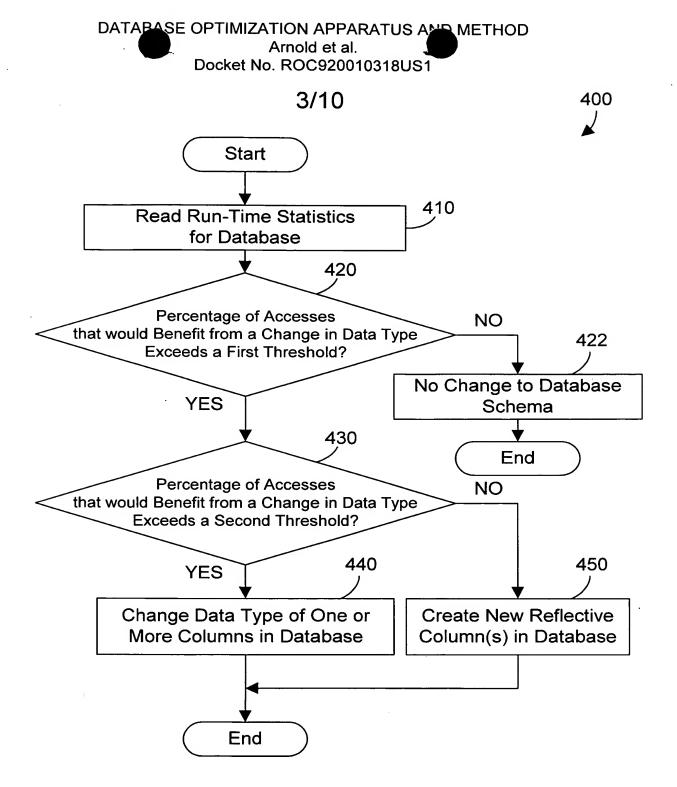


FIG. 4

DATABASE OPTIMIZATION APPARATUS AMMETHOD

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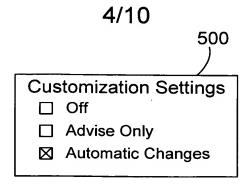


FIG. 5

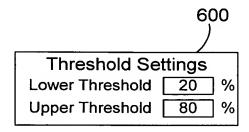


FIG. 6

710	720	700 1
char(20) name	packed decimal (6,0) id	
John Smith	345987	
Jane Jones	478921	
Bob Johnson	157346	:

FIG. 7

700A

710	720	810	820
Char(20)	packed decimal (6,0)	unicode(20)	int
name	id	name_ref	id_ref
John Smith	345987	*	+
Jane Jones	478921	*	+
Bob Johnson	157346	*	+

FIG. 8

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810	820	700B
unicode(20) name	int id	
John Smith	345987	•
Jane Jones	478921	
Bob Johnson	157346	

FIG. 9

		· -			, 📈
	SchemaName	TableName	TableOwner	Column	
				Count	_
	EmpSchema	Employee	user profile	2	
<	>	•	•	• <] }
	Schema2	Table3	Owner4	5	

1000

1100

FIG. 10 **Prior Art**

Column Table Schema Column Data Name Name Name Size Type Employee EmpSchema char 20 name packed id Employee EmpSchema (6,0)decimal

FIG. 11 **Prior Art**

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1300

1200					1330
1210	Contains Reflection	False	•••	False	1320
	Column Count	2	•••	5	1310

TableName TableOwner

SchemaName

user profile

Employee

EmpSchema

1007551.D21402

FIG. 12

Owner4

Table3

Schema2

\cup	Paradigm	COBOL	COBOL
Reflective	Column for Column	Null	IInN
Is Reflective	Column	False	False
Column	Size	20	(0'9)
Data	Type	char	packed decimal
Schema	Name	Employee EmpSchema	Employee EmpSchema
Table	Name	Employee	Employee
Column	Name	name	Ö

FIG. 13

5
_
G.

	2				1500					
1400			_ ^		1330	Optimized for Paradigm	COBOL	COBOL	Java	Java
1210	Contains Reflection	True	•••	False	1320	Reflective for Column	name_ref	id_ref	name	Ρi
	Column Count	2	•••	5	1310	Is Reflective Column	True	True	True	True
	TableOwner	user profile	•••	Owner4	FIG. 14	Column Size	20	(6,0)	20	9
	me Tab				Ī	Data Type	char	packed decimal	unicode	int
	TableName	Employee	•••	Table3		Schema Name	EmpSchema	EmpSchema	EmpSchema	EmpSchema
	Name	ema		na2		Sc				
	SchemaName	EmpSchema		Schema2		Table Name	Employee	Employee	Employee	Employee
			٠			Column Name	name	þi	name_ref	id_ref

					1700			
1600					1330	Optimized for Paradigm	Java	Java
1210	Contains Reflection	False	•••	False	1320	Reflective for Column	IInN	IInN
	Column Count	2	•••	5	1310	Column Is Reflective Size Column	False	False
	eOwner	user profile	•••	Owner4	FIG. 16	Column Size	20	9
	ne Tabl				FIC	Data Type	unicode	int
	TableName TableOwner	Employee	•••	Table3		schema Name	EmpSchema	EmpSchema
	Vame	ıema		na2		Sch		
	SchemaName	EmpSchema		Schema2		Table Name	Employee	Employee
			•			Solumn Name	name	į

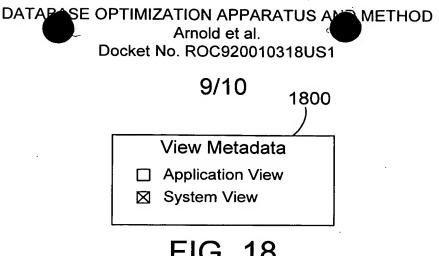


FIG. 18

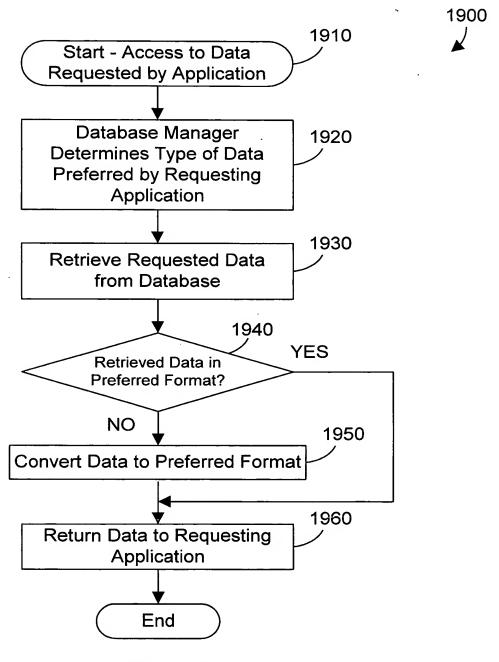


FIG. 19

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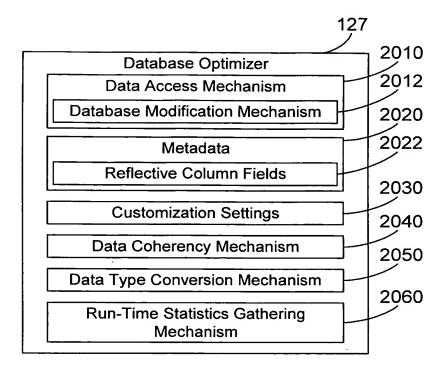


FIG. 20